

# CALLISTEMON KENMORRISONII (MYRTACEAE), A NEW SPECIES FROM EAST GIPPSLAND

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## ABSTRACT

Molyneux, W. *Callistemon kenmorrisonii* (Myrtaceae), a new species from East Gippsland. *Muelleria* 8 (3): 379–383 (1994). — *Callistemon kenmorrisonii* is described. Its relationship with *Callistemon subulatus* and *C. citrinus* is discussed. An illustration and map are provided.

## INTRODUCTION

In *Muelleria* 8(1):61–64(1993), I described *Callistemon forresterae*, and stated in its introduction that it was the first named of a number of apparently new species of *Callistemon* from eastern Gippsland, which have remained virtually uncollected, often due to remoteness of locality and limited population sizes.

*Callistemon kenmorrisonii* is described from one such population, but rather than being remotely sited, it has been overlooked in a relatively accessible area.

Even though it grows in close proximity to *C. citrinus* with which it may be superficially confused, it is a rheophytic, chasmophytic shrub (i.e. a plant which is anchored into crevices in rock) rather than one of moist ground or heathlands. No records exist of its collection under *C. citrinus* from the Betka River.

*Callistemon kenmorrisonii* exhibits some characteristics of both *C. subulatus* and *C. citrinus*, but growing trials by seed indicate that its characters do not segregate toward either of these species, and illustrate only the variability one would expect to plot in any taxon.

## TAXONOMY

*Callistemon kenmorrisonii* Molyneux *sp. nov.*

a *C. subulato* E.Cheel statura majore, conflorescentiis majoribus multo, antheriis purpureis, foliis majoribus difformibus, fructibus majoribus multo differt; a *C. citrino* (Curt.) Stapf pilis sporadicis saepe caespitosis in rhachidi, perigynio glabro praeter pilos caespitosos irregulares basi latere unico, foliis minoribus ad finem, fructibus maturis deciduis prompte, et habitatione differt.

TYPE: Victoria, Upper Betka River, east Gippsland, below bridge on Stony Peak Rd, c. 2.65 km south of the Princes Highway 37°32'S, 149°31'E, 12 Dec. 1993, *W.M. Molyneux* and *S.G. Forrester s.n.* (HOLOTYPE: MEL; ISOTYPE: BRI, CANB, CBG, NSW)

*Shrub*, upright or occasionally angular spreading, 1–3 m tall and 1–4 m wide, mostly multi-stemmed from a swollen rootstock; branching irregular; new growth sericeous, pink, soon becoming blue-green, eventually green with a sheen, but not glossy. *Bark* papery, spongy (particularly at the base), grey outside peeling to white. *Leaves* dense, spreading at c. 25°–45° to stems and branches, petioles variously twisted, aligning leaves in an irregular pattern; lamina stiff, coriaceous, narrowly to broadly lanceolate, mucronate, sometimes falcate, flat or shallowly concave, 15(25–28 & 33–46) 52 mm long, 3(4–5.5)6 mm wide, midvein apparent only on lower surface, level with or slightly indented into the leaf, margins rounded, secondary venation not visible, oil glands large, green, darker than leaves, openly distributed on both surfaces. *Conflorescence* usually distally frondose or less often on short stems arising low down on old wood, upright to declined or sometimes pendulous, 30–66 flowers per head, 60(80,90 & 100)105 mm long, 55(58)60 mm wide, rachis with either a sparse scattering of long white hairs along its length, or with random patches of these hairs, which are often

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around one side of the perigynium; leaves growing out above maturing flower head mostly interrupt the very end of the spike, giving the appearance of large floral bracts; true bracts often deciduous at an early stage of bud development, or if persistent, chaffy with white spreading hairs on the outside at the base, convex, roughly elliptical to subulate, c. 5 mm long, 1.5–2 mm wide. *Perigynium* 5–6 mm long, 3–4 mm wide, glabrous, but for a few long white hairs in common with the rachis at their point of attachment; sepals brown, c. 1.5 mm long, 2 mm wide, with irregular patches of short

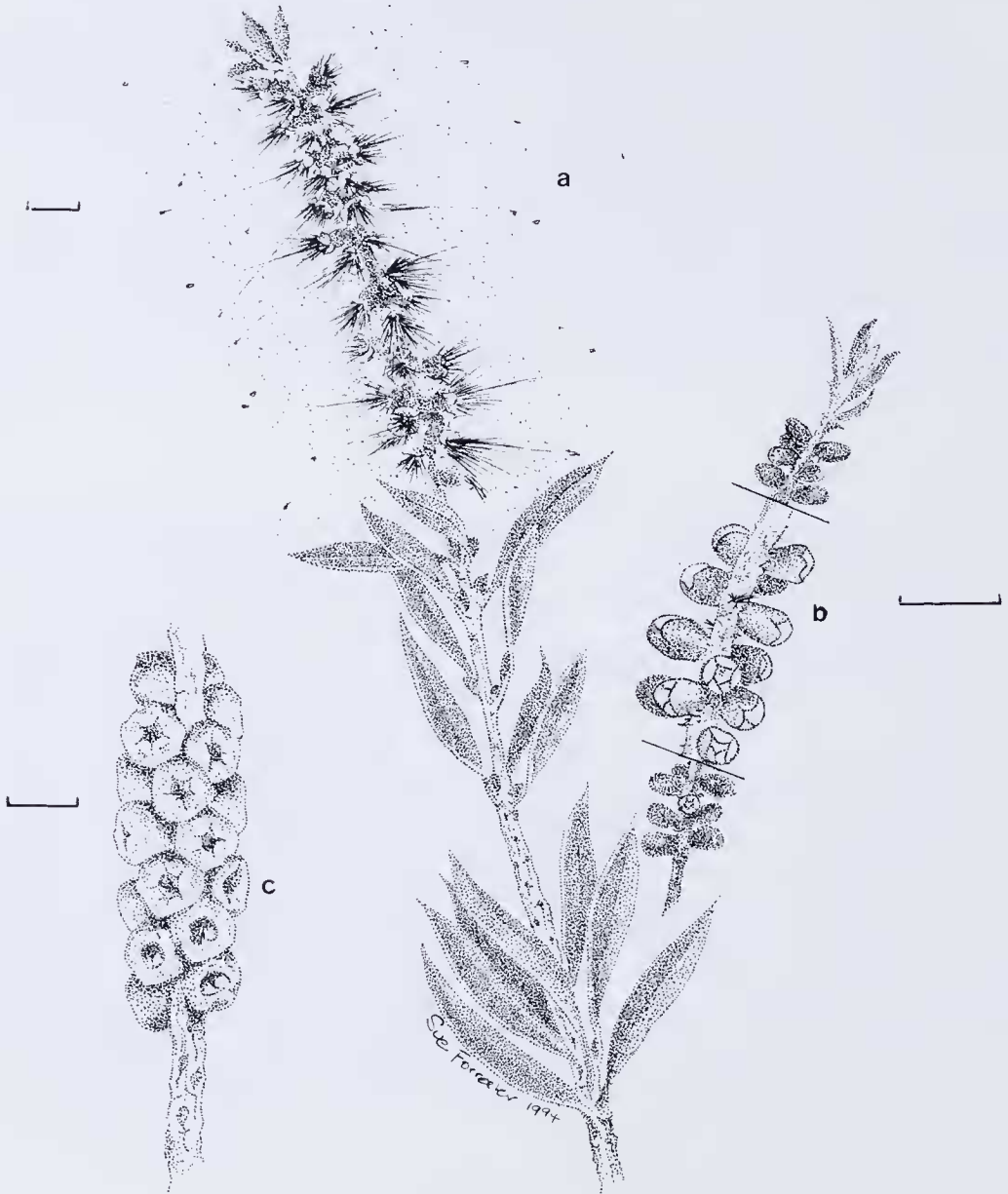


Fig. 1. *Callistemon kenmorrisonii*. a — conflorescence. b — section of rachis illustrating random tufts of hairs. c — fruits. Scale bars = 1 cm

white hairs at the base of their outer edges; petals green, 3.5–4.5 mm long, c. 2 mm wide, with irregularly ciliate edges; soon becoming chaffy, deciduous. *Stamens* 20–32 per flower, 16(22)25 mm long; filaments free, crimson; anthers c. 1.2 mm long, purple, gland not prominent. *Ovary* with a covering of shaggy white hairs c. 1.7 mm across, c. 1–1.5 mm below rim; style nearly straight or variously curved, mostly  $\pm$  level with stamens, or sometimes exceeding them by up to c. 5 mm, crimson, 20(22)26 mm long, gradually expanding behind the domed pollen presenter, mostly persistent after stamens fall. *Fruit* squat, eventually partially embedded in the stem, truncate, c. 6–9.5 mm wide, 5–6 mm deep, densely packed on stems, orifice irregular c. 2–4 mm wide, 1–2 mm deep, readily shed but not necessarily dehiscent by about the third year. (Fig. 1)

All measurements made from living material collected at the type locality.

#### FLOWERING TIME

November–February

#### DISTRIBUTION, HABITAT AND CONSERVATION STATUS

At this time, *C. kenmorrisonii* is only known by a population of c. 50 plants and is limited to an area of the upper Betka River, growing as a rheophytic chasmophyte, on undifferentiated Devonian-Silurian granites. *C. subulatus* is recorded from a single specimen nearby, but as the dominant species on granite at the Miners Track crossing, c. 16 km downstream. Here it is a shrub to c. 1.8 m tall and 1.8 m wide. (Fig. 2.)

Present also at Miners Track crossing is a single plant of a *Callistemon* which cannot be attributed to any of the three presently known species on and around the Betka River. While of similar size to *C. subulatus*, it has a much longer but still narrow foliage, and the conflorescences are mauve not crimson. In this character, it bears a superficial resemblance to *C. forresterae* of the Genoa River.

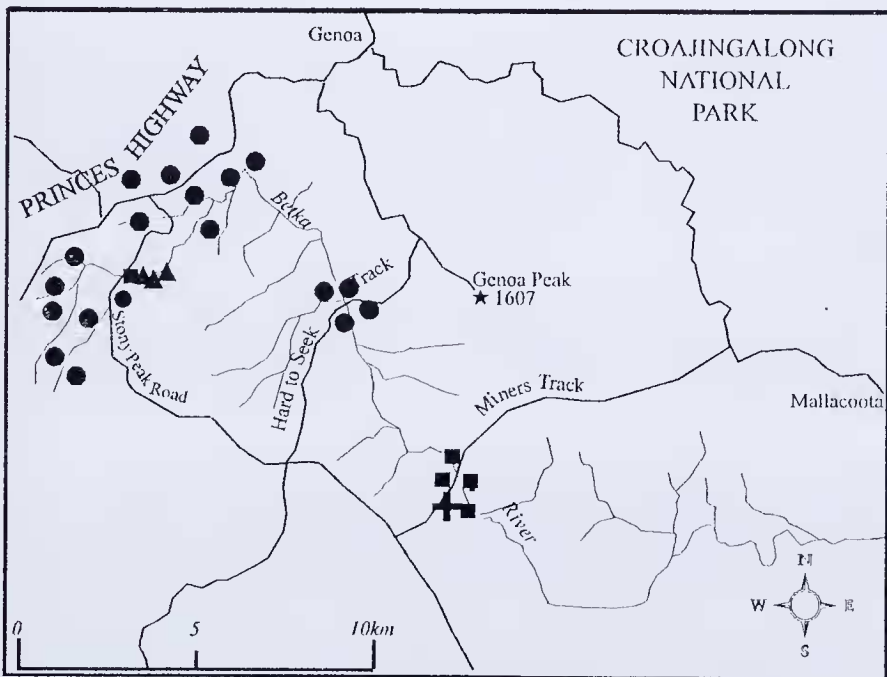


Fig. 2. Distribution of *Callistemon kenmorrisonii* (▲), *C. citrinus* (●), *C. subulatus* (■) and *C. sp* (single specimen)(+)

There is much of the Betka River, a short but productive stream, which is not easy to access, and a more thorough search of its length needs to be undertaken to ascertain whether this specimen is an isolate of a much larger upstream population.

In addition to the two rheophytic species, *C. citrinus* grows as a widespread shrub of moist to wet heathlands, occupying positions in the headwaters of tributaries of the Betka River, that *C. subulatus* and *C. kenmorrisonii* do not. It is also present on low swampy ground at the Hard-to-Seek Track crossing of the Betka River c. 9 km upstream from the Miners Track crossing.

Some of the plants found on and above the Betka River include:

*Acacia longifolia*, *Allocasuarina littoralis*, *Dampiera stricta*, *Eucalyptus obliqua*, *Eucalyptus radiata*, *Eucalyptus sieberi*, *Gahnia sieberiana*, *Goodenia ovata*, *Hakea sericea*, *Hakea teretifolia*, *Patersonia sericea*, *Pimelea humilis*, *Platylobium formosum*, *Platysace lanceolata*, *Pultenaea cuneata*, *Scaevola ramosissima*, *Sphaerolobium minus*, *Spyridium parvifolium*, *Triglochin rheophilum* and *Tristaniopsis laurina*.

The risk code (sensu Briggs & Leigh, 1989) for *C. kenmorrisonii* is assessed as 2V, that is the species has a maximum geographic range of less than 100 km and is vulnerable.

#### ETYMOLOGY

The epithet *kenmorrisonii* honours Kenneth Eugene Morrison (1926–) former Ranger of the Croajingalong National Park, stationed at Mallacoota; natural historian and teacher of others through his extensive knowledge of the plants, birds, mammals and reptiles, and their habitats, in a region to which he has devoted much of his adult life.

It was decided to name this plant *Callistemon kenmorrisonii* rather than *C. morrisonii*, to avoid confusion with the late Victorian naturalist Philip Crosbie Morrison.

#### DISCUSSION

*Callistemon kenmorrisonii* differs from *C. subulatus* in its larger size; 1–3 m tall, 1–4 m wide, compared with c. 1.2(1.8) m tall, c. 1(1.8) m wide in *C. subulatus*; longer, wider, more irregularly arranged leaves, c. 15–52 mm long, 3–6 mm wide, compared with c. 15–41 mm long and 1–3 mm wide in *C. subulatus*; crimson confluences with purple anthers, c. 6–10.5 cm long, 5.5–6 cm wide, compared with crimson confluences and crimson anthers, 5–8 cm long and 4–5 cm wide in *C. subulatus*; and fruits c. 6–9.5 mm wide, 5–6 mm deep compared with c. 2.5–4 mm wide, 2–4 mm deep in *C. subulatus*.

It differs from *C. citrinus* in the less regularly hairy rachis (densely villous in *C. citrinus* in local comparative populations); perigynium glabrous but for irregular patches of hairs at the base (regularly villous all over in *C. citrinus*); smaller leaves c. 15–52 mm long, 3–6 mm wide, compared with c. 30–80 mm long, 4–15 mm wide in *C. citrinus* and a rheophytic, chasmophyte habitat, compared with a moist or near-swamp habitat for *C. citrinus*.

#### NOTE

In *Muelleria* (8(1): 61–64 (1993) I described and named *Callistemon forresterae* from a single collection on the upper Genoa River in East Gippsland.

During December 1994, I investigated the middle reaches of the river and located a number of additional populations growing either on rock bars or in sand over rock.

The last of these (a single specimen) was within c. 6 km upstream of the hamlet of Genoa.

Further investigation needs to be undertaken to ascertain whether it occurs on the Genoa River upstream of the New South Wales border.

#### ACKNOWLEDGMENTS

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#### REFERENCES

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